

## A NEW ALOE FROM ERITREA

By G. W. REYNOLDS

(With Plates XVIII, XIX)

**Aloe massawana** Reynolds. Species nova, affinis *A. barbadensi* Mill. et *A. trichosanthae* Berger; ab *A. barbadensi* inflorescentia longiore pedicellis longioribus racemis brevioribus laxioribus, ab *A. trichosantha* racemis brevioribus, perianthio glabro differt.

*Planta* acaulis vel breviter caulescens, mox caespitosa. *Folia* ca. 16, dense rosulata, ca. 50 cm. longa, 10 cm. lata, 2 cm. crassa, sensim attenuata; *supra* pallide viridia, superne leviter canaliculata; *subtus* convexa; marginibus dentibus albidis 2—3 mm. longis, 15—25 mm. distantibus armata.

*Inflorescentia* 2—3-ramosa, 1.20—1.50 met. alta. *Racemi* anguste cylindrico-acuminati, 15—20 cm. longi, 5 cm. diametro. *Bracteae* anguste ovatae, 7 mm. longae, 3 mm. latae, albae, scariosae, 5-nervatae. *Pedicelli* 6 mm. longi. *Perianthium* glabrum, pallide coccineum, cylindrico-trigonum, 30—32 mm. longum; *segmenta exteriora* per 12 mm. (interdum 15 mm.) libera, obscure 3-nervata, interiora latiora. *Antherae* 2 mm. exsertae. *Stigma* demum 3 mm. exserta. *Ovarium* 4—5 mm. longum, 2 mm. diametro. (Plates XVIII and XIX.)

**HABITAT:** Eritrea, Massawa District: Arkiko, 8 miles south of Massawa. 13th April 1956, leaf only, Reynolds 8047 (PRE); plant ex Arkiko cult. Johannesburg, 4 May 1958, Reynolds 8047 (PRE). Plants cult. hort. Mr. A. J. Bell near Dar-es-Salaam, fl. 30 June 1958, Reynolds 8733 holotype (PRE), isotype (K, EA).

This new species was first brought to my notice by Professor H. B. Gilliland who, in January 1952, photographed flowering plants at Arkiko, 8 miles south of Massawa, in Eritrea. This locality is about 50—100 ft. above sea-level, at 15° 31' N., 39° 26' E., near the shore of the Red Sea.

Subsequently Mr. P. R. O. Bally informed me that he had found this species at Arkiko in April 1949, and also at the southern end of Zula Bay, further to the south, but none was then flowering.

When I investigated the Aloes of Eritrea in May 1956, I found many plants at Arkiko, and also in a dry sandy depression at Tumalo about

5 miles west of Massawa. No plants were then in flower, and I could not complete a description, but plants from Arkiko subsequently flowered in Johannesburg.

In July 1957 Mr. J. H. Whellan of Salisbury, Southern Rhodesia, and Mr. L. D. E. F. Vesey Fitzgerald of Abercorn, Northern Rhodesia, found some Aloe plants "closely resembling *A. vera*" near the Inn-by-the-Sea, 16 miles north of Dar-es-Salaam in Tanganyika Territory. On 30 June 1958 I visited that locality and found the plants.

I also met Mr. A. J. Bell, and saw large numbers of this species flowering in his gardens at Ukutani, 21 miles north of Dar-es-Salaam. About 20 years ago Mr. Bell had found a group of these plants growing on an old Arab grave on his estate. He divided them up and cultivated the increases. It seems that all the plants now cultivated in the neighbourhood derived from the original plants on that grave. This species is not known anywhere else along the coast, and it is almost certain that it was introduced.

These cultivated plants are, without any doubt whatever, conspecific with those at Arkiko in Eritrea.

*A. massawana* is named after the district of Massawa in Eritrea, which appears to be the specific centre, and where considerable numbers are found wild.

In habit of growth and in leaf and rosette characters, *A. massawana* bears a striking resemblance to *A. barbadensis* Mill. (= *A. vera* "L" non Mill.), but the latter differs in having a shorter thicker peduncle, shorter pedicels, and longer denser racemes of yellow flowers.

In inflorescence characters, *A. massawana* is closely allied to *A. trichosantha* Berger, but the latter (which I saw in the Ghinda valley, about 44 miles west of Massawa) has longer racemes and tomentose perianths apart from very different leaves.

The description is based on plants near Massawa, and flowers of cultivated plants.

**DESCRIPTION:** *Plants* acaulous or with short stems, with numerous shoots at random forming large dense groups sometimes 2—3 met. across.

*Leaves* about 16, densely rosulate, suberectly spreading, about 50 cm. long, 10 cm. broad and 2 cm. thick at base, gradually narrowing to the apex; *upper surface* dull grey-green, flat low down, slightly canaliculate upwards, with or without a few dull white spots low down; *lower surface* convex, dull grey-green, with or without a few white spots low down; *margins* armed with soft to firm almost white teeth that are reddish brown at apex only, smaller and 10 mm. apart low down, longer (2—3 mm.) and more distant (15—25 mm.) upwards; *sap* dries yellow.

*Inflorescence* usually 3-branched and 120—150 cm. high.



PLATE XVIII. *Aloe massawana* Reynolds

Plants at Arkiko, 8 miles south of Massawa, Eritrea. Height 1.40 met.  
*Photographed by Professor H. B. Gilliland in January, 1952.*

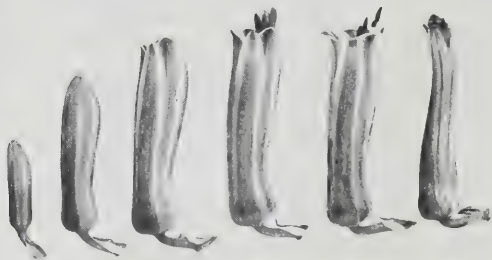


PLATE XIX. *A. massawana* Reynolds.  
 Plants cultivated by Mr. A. J. Bell, near Dar es Salaam, Tanganyika Territory.  
 Height 1.40 met. Flowers 1/1 from bud to post-pollination stage.

*Peduncle* plano-convex and 20 mm. broad at base, terete upwards, 2—3-branched from about the middle.

*Racemes* narrowly cylindric-acuminate, the terminal the highest and 15—20 cm. long, 5 cm. diam., subaxly flowered, youngest buds suberect and denser, open flowers laxer and nutant.

*Bracts* narrowly ovate-deltoid, 7 mm. long, 3 mm. broad, thin, scarious white, 5-nerved.

*Pedicels* 6 mm. long, obliquely spreading, decurved at apex.

*Perianth* pale scarlet, glabrous, 30—32 mm. long, cylindric, trigonous, 7 mm. diam. across the ovary, thence slightly narrowed on underside and enlarging slightly towards the throat with mouth slightly upturned; *outer segments* free for 12 mm. (sometimes 15 mm.), with white margins, obscurely 3-nerved, the apices subacute, slightly spreading; *inner segments* broader than the outer, with broad almost white border, with 3 crowded orange nerves forming a keel, the apices more obtuse and more spreading than the outer.

*Filaments* lemon, filiform-flattened, the 3 inner narrower and lengthening before the 3 outer with their *anthers* in turn exserted 2 mm.

*Stigma* at length exserted 3 mm.

*Ovary* pale green, 4—5 mm. long, 2 mm. diam.

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